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The Employees' Compensation Commission has recently refused to consider a claim for payment of medical and hospital bills for injuries incurred in the line of duty by an employee of this Bureau because the facts in the case were not reported promptly. In view of this and other similar decisions, it is absolutely necessary that all injuries, even though they appear to be of small consequence at the time, must be reported immediately to the Chief of Bureau in order that the claim for compensation may be promptly presented to the Commission.
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The Oregon Reclamation Congress was held at Bend, Oregon, Oct. 6 and 7. W. W. McLaughlin discussed various phases of refinancing irrigation districts, which was one of the main subjects of the two days conference. A. T. Mitchelson delivered a paper on underground water storage through water-spreading, pointing out the importance of this method of replenishing the water supply and reducing the cost of pumping from underground sources. Mr. Mitchelson continued to Walla Walla, Wash. to examine an area as to its suitability for underground water storage, and outline some investigational work to be undertaken. This preliminary inspection was requested by the State Engineer of Oregon and concurred in by the State Engineer of Washington, since the spreading grounds and underground basins involve areas in both States.

In connection with the wilting point work at the Pomona laboratory, a number of experiments were made on different methods of getting the plants started. Five different species of sunflower seeds were tried. The Helianthus Anus seed was found to germinate well and puts out a better leaf growth than any of the other varieties. Only two methods have been found to be satisfactory in getting a healthy plant started in this type of soil. One is to germinate the seeds in sand and let the plants get a good start and then transplant them to the heavy soil. The method found to be most satisfactory is to plant two Helianthus Anus seeds pointed end down in the dry soil, and then wet the soil to field capacity. The seeds germinate in three or four days, and grow very fast. This is an old Indian method of planting.

In connection with pump testing work in Idaho, J. C. Marr reports that a new sounder tip has been developed which it is believed will give accurate results in measuring the head under a wide range of conditions. It has been tentatively concluded that the air line and pressure gage

commonly in use for determining the pumping lift is likely to give erroneous results due to inability to read the gage accurately, due to barometric change, and to air contained in the water.

A new series of experiments to determine the effect of different salt solutions on the growth of algae in evaporation pans, and on the rate of evaporation will be carried on by A. A. Young. Nine evaporation pans each 2 feet in diameter and 10 inches deep, and one Weather Bureau Class A pan have been installed on the roof of a five-story building in Pomona, Calif., for this purpose. Water will be kept at the standard depth of 7 to 8 inches in each pan.

Experiments relating to the irrigation of subtropical fruits, being carried on at San Dimas, Calif., under the direction of Colin A. Taylor, revolve about the problem of proper methods to use in irrigating the heavy soil without damaging its structure and forming a plow sole. The most satisfactory method appears to be by furrows spaced 28 to 32 inches apart and about 200 feet in length. The last 20 to 30 feet of the run is blocked off into checks with tappoons to drop the water from one check to the next. The tappoons have a small hole in them so that the flow from one check to the next can be observed. In this way, water is readily held in all furrows clear to the end and surface run-off reduced to practically zero. The tappoons cost \$15 to \$25 per acre. Hay or straw is spread in the furrows at a cost of \$3 per acre to check the water and get the greatest contact of soil and water with a minimum of erosion. All plots were irrigated by this method in September and good penetration obtained.

L. M. Winsor and Wells A. Hutchins consulted State officials, irrigation lawyers, and local water users in Utah to obtain data and opinions relative to the desirability of framing a bill for consideration by the next Utah legislature, concerning establishment of organizations for handling the problem of flood control in communities where torrential floods followed by flows of gravel are a menace. Mr. Hutchins completed the study and framed the proposed bill.

Comparative tests of the use of cordeau and electric caps for detonating dynamite charges in drainage ditches are being conducted by W. D. Ellison. A single tube of cordeau was laid down the center of the channel and one stick of dynamite in each hole was set approximately flush with the surface. An ordinary fence staple was placed over the cordeau and pressed into the dynamite stick to insure firing. The use of cordeau in this way has the advantage that an unlimited length of channel can be dynamited at one time whereas only 200 holes can be dynamited at a time with electric caps. Also cordeau can be installed quickly and conveniently.

The manuscript for a report on tests of flow of water around bends is being prepared by D. L. Yarnell.

A study of drainage districts in northern and central Iowa is being made by G. R. Shier in connection with the project on operation of drainage districts. The object of the study is to discover the factors affecting the success and failure of drainage districts and to determine the financial status of a representative number of districts in different sections of the country.

J. G. Sutton is now inspecting the drainage pumping plants in the upper Mississippi valley upon which records have been kept for the past

five years.

A heavy rain fell at the Statesville, N.C. soil erosion station October 16 and 17. The rain came slowly and the terraces were not broken. One of the level terraces with closed ends filled to a depth of 0.9 foot and no breaks occurred. The run-off from the woods area was about as large as that from the terraced fields.

F. E. Hardisty has been transferred from Guthrie, Okla., to the new soil erosion experiment station near Zanesville, Ohio, where he will take charge of the engineering experiments at that station.

An annual conference of cooperators was held on the soil erosion farm at La Crosse, Wis. on October 1. This conference was attended by Professors A. R. Whitson, E. R. Jones and O. R. Zeasman of the University of Wisconsin; Dr. R. Zon and C. G. Bates of the U. S. Forest Service; H. H. Bennett and R. H. Davis of the Bureau of Chemistry and Soils; and L. A. Jones, C. E. Ramser and G. E. Ryerson of the Bureau of Agricultural Engineering. The status of existing experiments and plans for additional experimental work were discussed at this meeting.

Considerable difficulty on the Temple, Texas farm has been encountered in maintaining a level crest of the Parshall flume due to heaving of the soil when wet which is a peculiar characteristic of the Blackland soils. H. O. Hill has perfected a practical leveling device whereby the elevation of the crest can be quickly adjusted after any disturbance.

A rain of 5 inches occurred on the Hays, Kans. soil erosion farm on September 12 and 13, all of which fell in a little less than 24 hours. Weather Bureau records show that the frequency of occurrence of such a rain is about once in 50 years. Terraces with closed ends were overtopped, indicating that it is practically impossible to impound the entire run-off from such a rain. Therefore, provision is being made for outlet ditches at the ends of the closed-end level terraces, and the embankments at the ends of the terraces will be kept lower than the terrace top so that excess water will flow out there instead of overtopping the terrace.

An automatic gate for installation at the end of level terraces has been designed by R. W. Baird. All of the water will be retained by this gate until it reaches a depth of about 12 inches when the gate will automatically open and permit all of the water to flow out except the lower 6 inches. This gate serves two purposes, one to prevent overtopping of the terrace and the other to retain as much water as possible above the level terrace to determine the effect of this moisture conservation upon crops.

I. F. Reed, of the Toledo office, M. L. Nichols, of the Alabama station, J. W. Randolph, and R. B. Gray conferred at Auburn, Ala. relative to plans for the correlation of plowing experiments at the various stations where work of this character is in progress.

Arrangements have been made at the Toledo station for plowing tests in cooperation with the Ohio experiment station on their farms at Holgate and Paulding, Ohio.

The latest developments of cornstalk shavers and plow coverage attachments which will be used at Presidio, Texas, in a clean-up of cotton fields infested by the pink bollworm were discussed by D. A. Isler and other Bureau engineers at Toledo recently. The Presidio Valley was flooded twice during September by torrential rains along the Rio Grande and its tributaries, causing an almost complete loss of the cotton crop in many fields and serious damage to the cooperative pink bollworm control project being carried on there by the Bureaus of Agricultural Engineering and Entomology.

R. B. Gray spent the week of October 10 in the vicinity of Leland, Miss. on soybean-harvesting machinery investigations. Because of the rank stalk and weed growth which is generally badly tangled soybeans in that section present a much more difficult harvesting problem than in the Middle Western States.

Manuscript for a leaflet on the cross blocking of beets has recently been prepared by E. M. Mervine.

Preliminary tests of a combination mover-crusher on forage crops by E. D. Gordon of Jeanerette, La. indicate that wilting is considerably accelerated and drying speeded up by crushing the stems of the plants. This machine was designed to facilitate the drying of coarse-stemmed forage crops, such as soybeans and cowpeas.

Chas. A. Bennett recently returned from visiting various cotton ginneries in the Salt River Valley of Ariz., which handle Pima irrigated long staple cotton and in the San Joaquin Valley in Calif. handling the irrigated Acala cotton. Some very valuable information was secured.

A new cotton gin of the Fordyce type, having so-called revolving ribs has been fitted up in the laboratory at Stoneville and is undergoing tests. This gin embodies many features representing a distinct departure from established saw gin practice. Some roller gin tests have also been conducted with a view to comparing this method with saw ginning.

Ten all-steel vertical driers built in accordance with the designs of the Bureau of Agricultural Engineering are now operating in Arkansas, and approximately 25 orders have been signed for this season's installations.

A brief field study of housing conditions on farms in Ohio and Michigan as a step in preparation of bulletins on planning and remodeling farm houses was made recently by Wallace Ashby and H. A. Magnuson. Comparatively little construction work under way was seen but owners of many of the houses visited were planning future improvements. Work now in progress is being done at unusually low costs for both materials and labor.

Tests of methods of waterproofing rammed earth walls are being made on the rammed earth addition to the fertilizer machinery laboratory at Arlington farm. More than 30 kinds of surface coatings have been applied to the walls to determine their durability and the protection afforded. A section of rammed earth wall 5 feet 4 inches long, 10 inches thick and 7 feet high was tested to destruction in the Bureau of Public Roads laboratory at Arlington Experiment Farm, failing under a total load of 48,000 lbs. This wall was of silty clay and had seasoned for about two months.

The tests on the sterilization of greenhouse soils conducted at Annapolis, Md. by A.H. Senner have been concluded and a report of the results is in progress.

Prof. I. W. Rupel of the University of Wisconsin, is working with M.A.R. Kelley in summarizing data for a report on experiments made last winter, of effects of dairy barn temperatures on yield of milk and health of cows.

M. C. Betts has returned to his regular duties in the Bureau, having completed a special assignment consisting of the preparation of plans and specifications for a group of buildings on Government Island, California.

The Farm Fire Protection Committee of the National Fire Protective Association of which Mr. Betts is a member met at Chicago recently.